

Growing Garlic

Garlic growing is easy in the home garden. Maintaining top quality requires care and attention. Weeding is important as garlic does not like competition. Watering and not watering, harvesting on time and curing properly are all important for producing bulbs with good keeping qualities.

Soil Preparation

Garlic will grow under a wide variety of soil conditions. It is said to prefer free draining loam with lots of organic matter. Building up your soil with green manures as part of your normal crop rotation is a good practice.

When to Plant Garlic

In Canada most varieties of garlic, under most conditions, do best when planted in the fall. The timing of fall planting should be such that the roots have a chance to develop and the tops do not break the surface before winter. We have planted in the spring with mixed results.

Preparing Cloves for Planting

Shortly before planting break the bulbs apart into cloves. This is called 'cracking'. The cloves are attached to the basal plate, the plate that the roots grow from. When you crack the bulb each clove should break away cleanly, leaving an intact 'footprint' on the basal plate.

Set aside the very small cloves to eat or preserve, or to plant close together for spring greens, like green onions. Each larger clove will produce a good sized bulb by the end of the growing season. The smallest cloves require as much attention and produce significantly smaller bulbs.

Planting Garlic

You can plant garlic in single or double rows or in intensive beds with four to six plants across. We have lots of land and plant garlic in well-tilled beds of six rows, with about eight inch spacing between rows and between plants. Tighter spacing in the beds will produce a greater number of smaller bulbs for a higher total yield in terms of pounds of garlic per square foot of garden.

It is important to plant hard neck garlic with the top (pointed end) of the clove up, at least two inches below the surface.

When you have planted the garlic you can cover it with a layer of mulch if you wish.

Mulching

Mulching conserves moisture, moderates soil temperatures and inhibits weeds. It also shelters rodents and attracts deer and elk. All these factors need to be considered in deciding whether or not to mulch.

Mulching can even out the soil moisture between rains and irrigation cycles. It is not recommended in wetter climates where excess water can be a problem for garlic.

Moderating soil temperature is helpful where there are extremes of heat and cold. Garlic does not like repeated freezing and thawing. Frost heaves can tear the young roots from the cloves. A thick layer of winter mulch is a good insurance against winter kill. Garlic does not like extreme heat either and mulch will moderate the daily fluctuations in summer soil temperatures.

Chopped leaves, swamp grass, reeds and alfalfa hay are among the preferred mulch materials. Grain straw is not recommended because it can host wheat curl mite which will attack garlic. Grass hay is fine if you don't mind lots of grass seed in your soil.



In our area, zone 4 to 5, growers put on about 10 cm (4") of mulch in the fall for winter protection. By spring this has settled to 5 cm (2") which is enough for weed suppression and heat and moisture control. Where winters are harsher, thicker winter mulch is advisable and then some may need to be pulled back in the spring.

Garlic Flowers

Hard neck varieties produce a central stalk which goes straight up and then usually makes one or two loops. The garlic top is called a scape, garlic flower or top set, and contains a bulge where bulbils will form. If you want all the plant's energy to go into producing a large bulb, snip the scape off after it has made one or two loops. If you want to use the bulbils to propagate more garlic, leave them in place until harvest time and then dry them separately from the bulbs.

Watering Garlic

Garlic requires fairly even soil moisture during its early growth and then no additional moisture during the last few weeks. Mulch is one way of maintaining an even moisture regime. Not enough moisture means that garlic does not develop a full sized bulb. Over watering results in garlic with poor keeping qualities - poor wrappers, burst skins and mould.

Harvesting Garlic

A few weeks before harvesting stop watering the garlic. Different growers have different rules of thumb regarding the best time to harvest:

- when the lower leaves are half to three-quarters brown
- when the plants are 40% brown, 60% green.

The dying back of the leaves is only an approximate indicator. Inspect a few bulbs in the ground by carefully scraping away the dirt. Pull the garlic from the ground when the bulb has reached a good size and before the wrappers begin to deteriorate or the bulbs begin to split open. If a bulb is not well-wrapped, and the skins on the cloves are not intact, the garlic will not keep well. Learning exactly when to stop watering and when to harvest is a matter of judgment that comes with experience.

We have a late spring and in our location we begin harvesting our earliest varieties in mid to late July. The main harvest continues into August with the late varieties and spring planted beds being harvested in late August. We use a flat, narrow-bladed shovel to loosen the ground beside the garlic - we pierce fewer bulbs with it than we did with a fork - and pull the plants by hand. Be careful as garlic bruises easily.

Managing Garlic Beds for Pests and Disease

There are a number of practices that minimize the risk of pests or disease. The ones we consider the most important are:

- Use only clean, sound cloves from disease-free stock.
- Allow two years or more between successive crops in the allium family (garlic, onions, leeks, chives, elephant garlic).
- During the growing season remove (rogue) plants that are not doing well and send suspicious plants to the dump.

